CURRENT APPROVAL

11/28/79

WS 530

Chem-Nuclear Systems, Inc.
P. O. Box 1269
Portland, Oregon 97207

Dear Sir:

Pursuant to Section 6(e)(1) of the Toxic Substances Control Act (Public Law 94-469), regulations were promulgated in Title 40 of the Code of Federal Regulations, Part 761 (44 Federal Register, 31514 et seq.) setting forth the requirements for the formal approval of chemical waste landfills for the disposal of polychlorinated biphenyls (PCBs). By letter dated March 30, 1978, Chem-Nuclear Systems, Inc. made application to Region 10 for approval of a PCB disposal site designated as "Trench 5" at a chemical waste landfill located in Sections 25 and 36 T.2.N., R.20E.W.M., Gilliam County, Oregon. The Company submitted a technical report as required by Section 761.41(c)(1) and (2).

Public notice of the application was published on May 1, 1978 in the following Oregon newspaper: (a) "The Oregonian" in Portland, (b) "The East Oregonian" in Pendleton, (c) "The Chronicle" in the Dalles. A copy of the notice was also posted in the United States Post Office at Arlington, Oregon. Response to the public notice consisted of one letter stating opposition to the disposal of radioactive materials at the site. No comments were received regarding PCB disposal.

EPA Region 10 has reviewed the technical report and made a comprehensive review of the supplemental document, "Geological and Subsurface Investigations, Arlington Disposal Site, Gilliam County, Oregon" dated January 29, 1971 by Shannon and Wilson, consulting engineers from Portland, Oregon. In addition, a site visit and evaluation was made on April 27, 1978. After appropriate review and evaluation, EPA Region 10 approved the northerly 150 feet of Trench 6 for PCB disposal on June 30, 1978.

By formal application dated September 17, 1979, the Company requested approval of an additional PCB disposal area. Since this portion of Trench 6 (defined and located in Part C, Special Condition 1, infra) is located close to the previously approved Trench 5, further public notice was deemed unnecessary. The geological,

hydrological and climatological characteristics of the two trenches are nearly identical. EPA Region 10 considered the technical report and "Geological and Subsurface Investigations, Arlington Disposal Site, Gilliam County, Oregon" dated January 29, 1971 and the site visit and evaluation made on September 18, 1979 as appropriate and applicable to that PCB disposal area in Trench 6.

On the basis of the technical report, supporting materials, and site evaluation, and pursuant to the authority of TSCA § 6(e)(1), 40 CFR 761.41(c)(3)(ii), and Special Condition 1 of Part C of the Chem-Nuclear approval letter signed by me on June 30, 1978, approval is hereby granted for PCB waste disposal at the Chem-Nuclear Systems, Inc. disposal site identified as the northerly 150 feet of Trench 5 and a 100 foot by 100 foot area in the southwestern corner of Trench 6 located in Section 25, T.2.N., R.20E.W.M., Gilliam County, Oregon. This approval effective today, supercedes and replaces the June 30, 1978 approval, and is made subject to the requirements and conditions of Parts A and C of the enclosed Technical and Operational Requirements. Please note that violation of the requirements and conditions of this approval letter may subject the Company to substantial penalties under the Toxic Substances Control Act.

Dated this 28TH day of November 1979

Donald P. Dubois

Donald P. Dubois
Regional Administrator

Enclosure

cc: William Young

CommCen: IC 11/13/79

CONCURENCES								
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EPA Form 1320-1 (12-70)

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TECHNICAL AND OPERATIONAL REQUIREMENTS

PCB Disposal-Chem-Nuclear Systems, Inc.
Hazardous Waste Disposal Site
Arlington, Oregon

This document sets forth the requirements and conditions that must be met for EPA Region 10 approval for PCB waste disposal at the Chem-Nuclear Systems, Inc., disposal site identified as the northerly 150 feet of Trench 5 and a 100 foot by 100 foot area in the southwestern corner of Trench 6 located in Section 25 T.2N, R.20E.W.M., Gilliam County, Oregon. The report is divided into Parts A, B and C. Part A addresses the technical requirement set forth in Section 761.41(b) and includes a determination of whether each specific requirement has been met. Part B addresses waivers granted for specific technical requirements not met in Part A along with the rationale for granting the waiver. Part C sets forth special conditions that must be met to retain approval status.

Part A. Technical Requirements

EPA Region 10 has determined that the disposal site has met the technical requirements set forth in Section 761.41(b) of Title 40 unless otherwise indicated. Requirements not met are addressed in the waiver section (Part B).

(1) Soils (Section 761.41(b)(1))

Requirement - Landifll sites are to be located in "thick, relatively impermeable formations." Where this is not possible, the soil at the site shall meet specific parameters as to thickness, permeability, liquid limit, plasticity index, etc.

Determination - This has been met since the site is located in an area underlain by over 200 feet of soil with permeabilities ranging from 4 x 10-4 to 5 x 10-7 cm/sec. Between the soil and the ground water is a layer of impermeable basalt which confines the ground water under pressure.

(2) Synthetic Membrane Liners (Section 761.41(b)(2))

Requirement - Synthetic membrane liners shall be used when the hydrologic or geologic conditions at the landfill require such a liner.

Determination - This requirement has been met since the hydrologic or geologic conditions at the landfill does not require such a liner.

(3) Hydrologic Conditions (Section 761.41(b)(3))

Requirement - The bottom of the landfill must be substantially above the historical high ground water table. Flood plains, shorelands, and ground water recharge areas must be avoided. There can be no hydraulic connection between the site and standing or flowing surface water. The site must have monitoring wells and leachate collection and must be at least 50 feet from the historical high water table.

Determination - This requirement has been partially met. A deep test well at the site has shown that ground water beneath the site occurs under confined conditions at a depth of about 560 feet. The head on this aquifer creates a piezometric surface about 426 feet below the surface. Further, there is insufficient natural recharge to develop a continuous, definable local water table. The bottom of the landfill is substantially above the historical high ground water table and is more than 50 feet above the nearest ground water. The site is not located on a flood plain, shoreland or a ground water recharge area and there is no known hydraulic connection between the site and standing or flowing surface water. One of the required monitoring wells and the leachate collection system are waived in Parts B(1) and B(3)(b).

(4) Flood Protection (Section 761.41(b)(4))

Requirement - If the landfill is above the 100-year floodwater elevation, the operators shall provide diversion structures capable of diverting all of the surface water runoff from a 24-hour, 25-year storm.

Determination - The disposal site is located above the 100-year floodwater elevation; however, a waiver of the requirement will be granted as discussed in Part B(2).

(5) Topography (Section 761.41(b)(5))

Requirement - The landfill site shall be located in an area of low to moderate relief which minimizes erosion and helps prevent landslides or slumping.

Determination - This requirement has been met.

(6) Monitoring Systems (Section 761.41(b)(6))

(a) Water Sampling

(1) Baseline Date (Section 761.41(b)(5)(i)(A))
Requirement - Ground and surface water from the disposal site shall be sampled for baseline data purposes.

Determination - This requirement has been met since baseline ground water data is available and there is no surface water on the site.

(2) Monthly Sampling (Section 761.41(b)(5)(i)(B))
Requirement - Defined water sources shall be sampled at least monthly when the landfill is being used for PCB disposal operations.

Determination - This requirement will be met and is further addressed in Special Condition 15 in Part C.

(3) Sampling After Closure (Section 761.41(b)(5)(i)(C))
Requirement - Defined water sources shall be sampled indefinitely at a frequency of at least every six months after closure of the site.

Determination - This requirement has been partially waived to require sampling for a maximum of 10 years after closure of the site as is discussed in Part (B)(3)(a).

(b) Ground Water Monitoring Wells

(1) Monitoring Wells (Section 761.41(b)(6)(ii)(A))
Requirement - Three ground water monitoring wells shall be provided in a line through the center of the disposal site from the area of highest water table elevation to area of lowest water table elevation.

Determination - This requirement will be waived to allow two monitoring wells as is discussed in Part B (3)(b).

(2) Monitor Well Construction (Section 761.41(b)(6)(ii)(B))
Requirement - Monitor wells shall be cased and the annular space cemented with portland cement to prevent percolation of surface water into the well bore.

Determination - This requirement is waived to allow the specifications discussed in Part B(3)(c).

(c) Water Analysis (Section 761.41(b)(6)(iii))
Requirement - Water samples must be analyzed for PCBs, pH specific conductance, and total chlorinated organics, and data and records maintained as required in Annex VI of 40 CFR, Part 761.

Determination - This requirement will be met as is discussed in Special Conditions 15, 16, and 20 in Part C.

(7) Leachate Collection (Section 761.41(b)(7))

Requirement - A leachate collection and monitoring system shall be installed beneath the landfill and leachate monitored monthly for quantity and quality of leachate produced.

Determination - The leachate collection requirements are waived as is discussed in Part B (1).

(8) Chemical Waste Landfill Operations (Section 761.41(b)(8))

(a) PCB Handling (Section 761.41(b)(8)(i))
Requirement - PCBs shall be handled in a manner to prevent damage to containers and must be segregated from wastes which are not chemically compatible with the PCB containers or the PCBs.

Determination - These requirements will be met as described in Special Conditions 7, 8, 9, and 10 in Part C.

(b) Operations Plan (Section 761.41(b)(8)(ii))
Requirement - An operations plan shall be submitted to EPA for approval.

Determination - Such a plan has been submitted by the applicant Chem-Nuclear Systems, Inc. and is hereby approved.

(c) Ignitable Wastes (Section 761.41(b)(8)(iii))
Requirement - Ignitable wastes shall not be disposed of in chemical waste landfill.

Determination - This requirement shall be met as discussed in Special Condition 11.

(d) Records Maintenance (Section 761.41(b)(8)(iv))
Requirement - Records shall be maintained for all PCB disposal operations and must include three-dimensional burial coordinates. Additional records must be maintained as required in Annex VI.

Determination - This requirement will be met as described in Special Conditions 9 and 20 in Part C.

(9) Supporting Facilities (Section 761.41(b)(9))

(a) Fencing (761.41(b)(9)(i))
Requirement - A six foot woven wire fence shall be provided around the perimeter of the site.

Determination - This requirement has been met.

(b) Road Maintenance (761.41(b)(9)(ii))
Requirement - Access and on-site roads shall be maintained in a safe manner.

Determination - This requirement will be met as described in Special Condition 4 in Part C.

(c) Site Operations (761.41(b)(9)(iii))
Requirement - The site shall be operated and maintained in a safe manner.

Determination - This requirement will be met as described in Special Condition 5 in Part C.

Part B. Waivers of Specific Technical Requirements

The following technical requirements under Section 761.41(b) are hereby waived:

(1) Hydrology (leachate collection requirement only) (Section 761.41(b)(3)) and Leachate Collection (Section 761.41(b)(7))

Requirement - A leachate collection and monitoring system shall be installed.

Determination - The disposal site receives about 10 inches of annual rainfall, but has a pan evaporation of about 63 inches per year. In addition, volcanic tuffs beneath the trenches will act as an absorbing soil column some 200 feet thick to trap any fluids that may leak from the trench. The resulting limited downward movement of water from the trenches will produce no degradation of the ground water reservoir, because the reservoir, located at a depth of more than 500 feet, is protected by layers of relatively impermeable basalt. No leachate collection is deemed necessary.

(2) Flood Protection (Section 761.41(b)(4))

Requirement - For sites located above the 100-year floodwater elevation, diversion structures capable of diverting the surface water runoff from a 24-hour, 25-year storm shall be provided.

Determination - The site is located in the Columbia Plateau basaltic province of north central Oregon and is more than 200 feet above the nearest stream bed located in adjacent Alkali Canyon. No flood data is available for this area; however, the disposal site is presumed to be above the 100-year floodwater elevation. Since no runoff occurs in the area of the disposal site, the facility will not be required to construct the specified diversion structures. Occasional rain or snow melt that

accumulates in wind-blown depressions either sublimates, evaporates or infiltrates into the shallow soil, usually to be evapo-transpired during the dryer months. Special Condition 13 in Part C addresses the requirement for overland flow diversion.

(3) Monitoring Systems (Section 761.41(b)(6)(i)(C), (ii) (A), & (ii) (B))

(a) Sampling after closure (761.41(b)(6)(i)(C))
Requirement - Defined water sources shall be sampled indefinitely every six months after final closure of the disposal site.

Determination - This requirement is partially waived as sampling every six months for a period of ten years after final closure of the disposal area is deemed adequate. See Special Condition 17 in Part C.

(b) Monitor wells (761.41(b)(6)(ii)(A))
Requirement - Since the underlying earth is impermeable with a uniform slope in one direction, three monitor wells are required that extend from the area of highest water table elevation to the area of lowest water table elevation.

Determination - As indicated in Part A (2), the ground water occurs under confined conditions at a level of 560 feet below the surface. Therefore, two existing wells will provide adequate monitoring. Dry wells (see Part C (16)) below the disposal site will monitor the unsaturated material.

(c) Monitor wells construction (761.41(b)(6)(ii)(B))
Requirement - Monitor wells shall be cased and the annular space cemented with portland cement to prevent percolation of surface water into the well bore.

Determination - The two existing groundwater monitor wells are only partially cased, with portland cement used to cement the bottom of the casing into the underlying basalt. The annular spaces are backfilled with well cuttings from the site. The existing cement and backfill will prevent the movement of surface water down the annular space; therefore, it is not necessary to drill additional wells or to reconstruct the existing wells.

Part C. Special Conditions

(1) PCBs, as defined by 40 CFR § 761.2 (incorporated herein by reference), shall be disposed of as provided by 40 CFR §761.10 and condition of this approval letter. PCBs shall be disposed of in the northerly 150 feet of Trench 5 located in SW 1/4, SE 1/4, Section 25, T.2.N., R.20 E.W.M., Gilliam County, Oregon and in the southwest corner of Trench 6, 80 feet (north-south) by 100 feet (east-west) on the trench floor (100 feet by 100 feet at the trench top) located in SW 1/4, Section 25, T.2.N., R.20 E.W.M. Gilliam County, Oregon. PCBs received at the Chem-Nuclear Arlington facility shall be stored in compliance with 40 CFR §761.42 until disposed of.

(2) Approval of the above described site will be continued until January 1, 1982, unless otherwise extended or modified.

(3) Access to the disposal site during normal working hours for the purpose of EPA inspections and sampling conducted pursuant to Section 11 of the Toxic Substances Control Act shall not be denied.

(4) Roads shall be maintained on the site which are adequate to operate and maintain the site without causing safety or nuisance problems or hazardous conditions.

(5) The disposal site shall be operated and maintained in full compliance with all terms and conditions of this approval letter and in a manner to prevent safety problems or hazardous conditions resulting from spilled liquids or wind-blown materials.

(6) The floors of the northerly 150 feet of Trench 5 and the PCB disposal area of Trench 6 shall be covered with a one-foot thick layer of charcoal and the charcoal covered with a one-foot layer of earth prior to placement of PCB wastes.

(7) PCB non-liquid materials and PCB liquids in capacitors shall be buried in the containers in which they are received or stored. PCB shipping containers permanently dedicated and labelled for use solely for shipping PCB articles may be returned for reuse provided that all free liquid is removed and placed in storage and any remaining liquid is removed by sorbtion onto charcoal, with subsequent disposal of such charcoal into the northerly 150 feet of Trench 5 or into the PCB disposal area of Trench 6.

(8) In no event shall PCB containers be dumped or pushed into Trench 5 or Trench 6 from the lip of the trench.

(9) No PCB wastes, nor wastes or materials of any kind, shall be placed or disposed of in the northerly 150 feet of Trench 5 and the PCB disposal area of Trench 6, unless a written record of the placing or disposal of such waste or material is made contemporaneously. The exact location of each waste shall be included in the record with respect to a permanent, surveyed, referenced monument. The nature of each waste or material, including whether such waste is a PCB mixture (such as PCB-contaminated charcoal), PCB article, PCB container, or PCB equipment, shall also be included in the record. Such records shall also include three-dimensional burial coordinates.

(10) Except as provided in Special Conditions 6 and 11, no materials other than capacitors, decontaminated transformers, non-liquid PCB mixtures, and PCB article, equipment and containers may be placed in the northerly 150 feet of Trench 5 and in the PCB disposal area in Trench 6. PCB-contaminated liquids and mineral oil diletic fluids which contain concentration of PCBs less than 500 ppm and which have been pretreated and/or stabilized (e.g. chemically fixed, mixed with dry inert, absorbant, etc.) such that a non-flowing consistency is achieved shall be considered as non-liquid PCB mixtures for purposes of this Special Condition.

(Note: PCB large and high or low voltage capacitor will not be disposed of in the northerly 150 feet of Trench 5 and in the PCB disposal area of Trench 6, after January 1, 1980.)

(11) Ignitable waste shall not be disposed of in the PCB Trenches as defined in Section 461.41(b)(8)(iii).

(12) With the exception of PCBs contained in capacitors or nonremovable residual liquids in other PCB containers, no other PCB liquids, whether containerized or not, shall be disposed of in Trench 5 and Trench 6. Also, no other liquids shall be disposed of in Trench 5 and Trench 6 unless a substantially impermeable dike, having a width of at least 10 feet, is placed between the PCB disposal area and the remainder of Trench 5 and Trench 6.

(13) The land surface around Trench 5 and Trench 6 shall be graded or trenched to prevent any overland runoff from flowing into the PCB landfill.

(14) Upon final closure of the northerly 150 feet of Trench 5, and the southwestern corner of Trench 6, it shall be covered with a layer of compacted earth which extends a minimum of three feet below the natural land surface.

(15) The two ground water monitor wells (site water well and the office water well) shall be sampled monthly and analyzed for the following parameters.

a. PCBs (detectability to 10 to 30 ppt)
b. pH
c. Specific Conductance
d. Total Chlorinated Organics (detectability to 1.0 ppm)
e. Chlorides (detectability to 1.0 ppm)

Samples from each well shall be taken from a point located between the well pump and the pressure tank.

(16) Test wells B, B_4 and B_6, shown on Attachment B to the technical report submitted by Chem-Nuclear System, Inc., on March 10, 1978 and the three observation wells in Trench 5 and one observation well in Trench 6 shall be checked monthly for the presence of liquid in the well bore. These observation wells shall extend to the bottom of the trench and shall be at least 6 inches in diameter and adequately perforated to collect fluids. If any liquid is detected, a sample shall be taken and analyzed for the following parameters.

a. PCBs (detectability to 1.0 ppb)
b. pH
c. Specific Conductance
d. Total Chlorinated Organics (detectability to 1.0 ppm)
e. Chlorides (detectability to 1.0 ppm)

(17) The two ground water wells (the site water well and the office water well) shall be sampled on a frequency of no less than once every six months for a period of ten years after final closure of the disposal site and the samples analyzed as required in Special Condition 15.

(18) Sampling methods and analytical procedures for the parameters specified in Special Condition 15 shall be as described in 40 CFR Part 136 as amended in 41 FR 52779 on December 1, 1976. In addition, any laboratory performing chemical tests for the operator of the disposal site shall be participating in EPA's Quality Assurance Program for analytical quality control.

(19) All monitoring results obtained pursuant to Special Conditions 15, 16 and 17 shall be recorded in writing contemporaneously, and such written records shall be submitted monthly to the Solid Waste Management Program, EPA Region 10, M/S 530, 1200 Sixth Avenue, Seattle, Washington 98101.

(20) All data and the results of sampling and analysis shall be recorded in writing contemporaneously, and such written records shall be maintained as specified in Annex VI (b) (40 CFR 761.45(b)).

(21) The operator of the disposal site shall immediately report to the Regional Administrator any detection of PCBs in the samples obtained as a result of any of the monitoring activity described in Special Conditions 15, 16 and 17.

(22) The monthly report specified in Special Condition 19 shall include a summary of any spilled PCB material received during the month. The summary should include the spilled material source, the shipper and the quantity delivered.

NOTICE

Pursuant to Sections 15(1) and 16(a) of TSCA, (15 USCA §§ 2614 and 2615(a)) the recipient hereof is advised that penalties not to exceed $25,000 per day may be administratively assessed for any failure to comply with requirements of this document imposed by the authority of, or the regulations prescribed pursuant to, Section 6(e) of the Toxic Substances Control Act (15 USCA § 2605(e)).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

LA modifications 5/14/80

M/S 530

MAY 14 1980

Bruce W. Johnson, President
Chem-Nuclear Systems, Inc.
10602 N.E. 38th Place
Kirkland, WA 98033

Re: Modification of PCB Disposal Site Approval Letter for Arlington, Oregon Facility

Dear Mr. Johnson:

We received a letter dated March 19, 1980 from Mr. Frank Dement, Site Manager, Arlington Chemical Landfill, requesting that the PCB Disposal Letter for that site be modified to exclude the southwest corner of Trench 6 as a PCB disposal area in order that the area could be used for other types of disposal. Another letter dated April 15, 1980, from Mr. Bill Johnson, requested modification of the existing permit to allow disposal of capacitors as outlined in 40 CFR 761, March 28, 1980 of the Federal Register.

Accordingly, pursuant to the authority of TSCA §6(e)(1), 40 CFR 761.41(C)(3)(ii) and Special Condition 2 of Part C of Chem-Nuclear's Approval Letter, signed by myself on November 28, 1979, Part C of that Approval Letter is hereby deleted and a new Part C, attached hereto, is substituted, effective today. Please note that today's modification in no way affects Parts A and B of Chem-Nuclear's Approval Letter, which remains in full force and effect.

Should you have any questions, Roger Fuentes, PCB Site Approval Coordinator, will be pleased to respond. He can be reached at (206) 442-2850.

Sincerely,

/s/ Donald P. Dubois
Donald P. Dubois
Regional Administrator

Enclosure

cc: William Young, Oregon DEQ
John Vlastelicia, Oregon Operations Office

CONCURRENCES FUENTES/mas/5/13/80

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SURNAME	FUENTES	HEGDAHL	FEIGNER	SMITH	REED	COATE	GARCIA	STEFANI
DATE	5/13/80	5/13	5/13	5.13.80	5/14		5/13	5/13

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Part C. Special Conditions

(1) PCBs, as defined by 40 CFR §761.2 (incorporated herein by reference), shall be disposed of as provided by 40 CFR §761.10 and condition of this approval letter. PCBs shall be disposed of in the northerly 150 feet of Trench 5 located in SW ¼, SE ¼, Section 25, T.2.N., R.20 E.W.M., Gilliam County, Oregon. PCBs received at the Chem-Nuclear Arlington facility shall be stored in compliance with 40 CFR §761.42 until disposed of.

(2) Approval of the above described site will be continued until January 1, 1982, unless otherwise extended or modified.

(3) Access to the disposal site during normal working hours for the purpose of EPA inspections and sampling conducted pursuant to Section 11 of the Toxic Substances Control Act shall not be denied.

(4) Roads shall be maintained on the site which are adequate to operate and maintain the site without causing safety or nuisance problems or hazardous conditions.

(5) The disposal site shall be operated and maintained in full compliance with all terms and conditions of this approval letter and in a manner to prevent safety problems or hazardous conditions resulting from spilled liquids on wind-blown materials.

(6) The floor of the northerly 150 feet of Trench 5 shall be covered with a one-foot thick layer of charcoal and the charcoal covered with a one-foot layer of earth prior to placement of PCB wastes.

(7) PCB shipping containers permanently dedicated and labelled for use solely for shipping PCB articles may be returned for re-use provided that all free liquid is removed and placed in storage and any remaining liquid is removed by sorbtion onto charcoal, with subsequent disposal of such charcoal into the northerly 150 feet of Trench 5.

(8) Prior to disposal, all large PCB capacitors and all small capacitors described in §761.10(b)(2)(iv), shall be placed in one of the Department of Transportation specification containers identified in §761.42(c)(6) or in containers that comply with 49 CFR 178.118 (specification 17H containers). Large PCB capacitors which are too big to fit inside one of these containers shall be placed in a container with strength and durability equivalent to the DOT specification containers. In all cases, interstitial space in the container shall be filled with sufficient absorbent material (such as sawdust or soil) to absorb any liquid PCBs remaining in the capacitors.

(9) In no event shall PCB containers be dumped or pushed into Trench 5 from the lip of the trench.

(10) No PCB wastes, nor wastes or materials of any kind, shall be placed or disposed of in the northerly 150 feet of Trench 5, unless a written record of the placing or disposal of such waste or material is made

contemporaneously. The exact location of each waste shall be included in the record with respect to a permanent, surveyed, referenced monument. The nature of each waste or material, including whether such waste is a PCB mixture (such as PCB-contaminated charcoal), PCB article, PCB container, or PCB equipemnt, shall also be included in the record. Such records shall also include three-dimensional burial coordinates.

(11) Except as provided in Special Conditions 6 and 12, no materials other than capacitors, decontaminated transformers, non-liquid PCB mixtures, and PCB articles, equipment and containers may be placed in the northerly 150 feet of Trench 5. PCB-contaminated liquids and mineral oil dilectic fluids which contain concentrations of PCBs less than 500 ppm and which have been pretreated and/or stabilized (e.g. chemically fixed, mixed with dry inert, absorbant, etc.) such that a non-flowing consistency is achieved shall be considered as non-liquid PCB mixtures for purposes of this Special Condition.

(Note: PCB capacitors may be disposed of in PCB chemical waste landfills that comply with Annex II, after March 1, 1981, if the Assistant Administrator for Pesticides and Toxic Substances publishes a notice in the Federal Register extending the land disposal of PCB capacitors.

(12) Ignitable waste shall not be disposed of in the PCB trench as defined in Section 761.41(b)(8)(iii).

(13) With the exception of PCBs contained in capacitors or nonremovable residual liquids in other PCB containers, no other PCB liquids, whether containerized or not, shall be disposed of in Trench 5. Also, no other liquids shall be disposed of in Trench 5 unless a substantially impermeable dike, having a width of at least 10 feet, is placed between the PCB disposal area and the remainder of Trench 5.

(14) The land surface around Trench 5 shall be graded or trenched to prevent any overland runoff from flowing into the PCB landfill.

(15) Upon final closure of the northerly 150 feet of Trench 5, it shall be covered with a layer of compacted earth which extends a minimum of three feet below the natural land surface.

(16) The two ground water monitor wells (site water well and the office water well) shall be sampled monthly and analyzed for the following parameters.

a. PCBs (detectability from 10 to 30 ppt)
b. pH
c. Specific Conductance
d. Total Chlorinated Organics (detectability to 1.0 ppm)
e. Chlorides (detectability to 1.0 ppm)

Samples from each well shall be taken from a point located between the well pump and the pressure tank.

(17) Test wells B3, and B4, shown on Attachment B to the technical report submitted by Chem-Nuclear Systems, Inc., on March 10, 1978, and the three observation wells in Trench 5 shall be checked monthly for the presence of liquid in the well bore. These observation wells shall extend to the bottom of the trench and shall be at least 6 inches in diameter and adequately perforated to collect fluids. If any liquid is detected, a sample shall be taken and analyzed for the following parameters.

a. PCBs (detectability to 1.0 ppb)
b. pH
c. Specific Conductance
d. Total Chlorinated Organics (detectability to 1.0 ppm)
e. Chlorides (detectability to 1.0 ppm)

(18) The two ground water wells (the site water well and the office water well) shall be sampled on a frequency of no less than once very six months for a period of ten years after final closure of the disposal site and the samples analyzed as required in Special Condition 16.

(19) Sampling methods and analytical procedures for the parameters specified in Special Condition 16 shall be as described in 40 CFR Part 136 as amended in 41 FR 52779 on December 1, 1976. In addition, any laboratory performing chemical tests for the operator of the disposal site shall be participating in EPA's Quality Assurance Program for analytical quality control.

(20) All monitoring results obtained pursuant to Special Conditions 16, 17, and 18 shall be recorded in writing contemporaneously, and such written records shall be submitted monthly to the Solid Waste Management Program, EPA Region 10, M/S 530, 1200 Sixth Avenue, Seattle, Washington 98101.

(21) All data and the results of sampling and analysis shall be recorded in writing contemporaneously, and such written records shall be maintained as specified in Annex VI (b) (40 CFR 761.45(b)).

(22) The operator of the disposal site shall immediately report to the Regional Administrator any detection of PCBs in the samples obtained as a result of any of the monitoring activity described in Special Conditions 16, 17, and 18.

(23) The monthly report specified in Special Condition 20 shall include a summary of any spilled PCB material received during the month. The summary should include the source of the spilled material (generator), the transporter if different from the generator, and the quantity delivered.

NOTICE

Pursuant to Section 15(1) and 16(a) of TSCA (15 USCA §§2614 and 2615(a)), the recipient hereof is advised that penalties not to exceed $25,000 per

day may be administratively assessed for any failure to comply with requirements of this document imposed by the authority of, or the regulations prescribed pursuant to, Section 6(e) of the Toxic Substances Control Act (15 USCA §2605(e)).

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

REPLY TO ATTN OF: M/S 534

FEB 20 1981

Bruce W. Johnson, President
Chem-Security Systems, Incorporated
10602 N.E. 38th Place
Kirkland, Washington 98033

Re: Expansion of Approved PCB Disposal Area

Dear Mr. Johnson:

We received a letter dated January 20, 1981 from Ms. Kathleen Niesen, Regulatory Affairs Manager, requesting approval of the southwest corner (200 ft. east/west X 175 ft. north/south) of Trench 9 for PCB disposal. Based upon the recommendation of my technical staff, I am approving your request.

Accordingly, pursuant to the authority of TSCA § 6(e)(1), 40 CFR 761.41(C)(3)(ii) and Special Condition 2 of Part C of Chem-Nuclear's Approval Letter, signed by me on November 28, 1979, Part C, Special Condition 1 is hereby revised and amended to read as follows:

> "(1) PCB's as defined by 40 CFR § 761.2 (incorporated herein by reference), shall be disposed of as provided by 40 CFR § 761.10 and conditions of this Approval Letter. PCB's shall be disposed of in the northerly 150 feet of Trench 5 located in S.W. 1/4, S.E. 1/4, Section 25, T.2.N., R. 20 E.W.N., and in the westerly 200 feet of Trench 9 located in S.E. 1/4, S.E. 1/4 of same Section 25, Gilliam County, Oregon. PCB's received at the Chem-Nuclear Arlington facility shall be stored in compliance with 40 CFR 761.42 until disposed of."

This revision is effective today. Please note that today's revision of Special Condition 1 in no way affects Parts A and B of Chem-Nuclear's Approval Letter, which remains in full force and effect.

It should be noted that EPA is currently reviewing your Letter of Approval and is planning to modify that letter in order to incorporate changes which will clarify the requirements contained within. Approval of the use of Trench 9 has been expedited and issued prior to the completion of the modification due to the pressing nature of the disposal capacity shortage at the Arlington site.

Should you have any questions, Roger Fuentes, PCB Site Approval Coordinator will be please to respond. He can be reached at (206) 442-2850.

Sincerely,

Donald P. Dubois
Regional Administrator

cc: William Young, DEQ
John Vlastelicia, EPA

Note: Original picked up by Kathy Nielsen Feb 20, 1981. at about 5:30 pm.

Roger C. Fuentes
2/20/81

REFERRENCES

REFERENCES

1. Public Law 94-469, 94th Congress, Oct. 11, 1976, 90 Stat. 2003, "Toxic Substances Control Act."

2. "The Toxic Substances Control Act: An Overview of its Authorities and Major Activities," Sept. 1979, USEPA.

3. "EPA's Final PCB Ban Rule: Over 100 Questions & Answers To Help You Meet These Requirements," June 1980, TS-799 Office of Toxic Substances, Washington, D.C. 20460, USEPA.

4. Federal Register, Vol. 44 No. 106, Thurs. May 31, 1979, 31514-5, "Interim Guidelines For the Disposal/Destruction of PCBs and PCB-Items by Non-thermal Methods," Dec. 1980, by E.M. Sworzyn and D.G. Ackerman, Jr. Contract No. 68-02-3174 TRW Environmental Engineering Division, (Draft).

5. "The Prevalence of Subsurface Migration of Hazardous Chemical Substances at Selected Industrial Waste Land Disposal Sites," Office of Solid Waste [Geraghty and Miller, Inc.]. Environmental Protection Publication SW-634 Washington, D.C., U.S. Environmental Protection Agency, Oct. 1977.

6. Black, Myron W., Amcord, Inc., Usher, David, Marine Pollution Control, Inc., "Safe disposal of PCBs."

7. "Occupational Exposure to Polychlorinated Biphenyls (PCBs)", Sept. 1977, Dept. HEW, Washington D.C.

8. Versar, Inc. Polychlorinated Biphenyls in the U.S. Industrial Use and Environmental Distribution, Feb. 25, 1976, NTIS PB-252-012.

9. "Sampling Methods and Analytical Procedures Manual for PCB Disposal: Interim Report", USEPA, Feb. 10, 1978.

10. Eisenreich, S. J., G. I. Hollod, and T. C. Johnson, "Accumulation of PCBs in Superficial Lake Superior Sediments - Atmospheric Desposition," Environmental Science and Technology, May 1979, pp. 569-573.

11. Proceedings of 6th Annual Symposium on Disposal of Hazardous Waste, EPA. 600/9-00-010, March 1980, by EPA Municipal Environmental Research Laboratory, Cincinnati, Ohio 45268.

12. Support Document/Voluntary Environmental Impact Statement and PCB Manufacturing, Processing, Distribution, in Commerce, and Use Ban Regulation: Economic Impact Analysis, Office of Toxic Substances, Washington, D.C. 20460, April 1979, USEPA.

13. "The Analysis of Polychlorinated Biphenyls In Transformer Fluids and Waste Oils," U.S. EPA Office of Research and Development Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, February 1981, (DRAFT).